

GenCore version 4.5  
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OM protein - protein search, using sw model

Run on:

March 1, 2001, 15:47:15 ; Search time 210.42 Seconds

(without alignments)  
6.988 Million cell updates/sec

title: US-09-331-631a-5\_COPY\_33\_75  
perfect score: 248  
Sequence: 1 NOEDPQTECQQCQRRCRQQE.....RQQQYCQRRCKEICEEEY 43

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 26845 seqs, 34193795 residues

Total number of hits satisfying chosen parameters: 268485  
Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : A\_Geneseq\_36:\*

1: /SIDS1/gcdata/geneseq/geneseq/geneseq/AA1980.DAT:\*

2: /SIDS1/gcdata/geneseq/geneseq/geneseq/AA1981.DAT:\*

3: /SIDS1/gcdata/geneseq/geneseq/geneseq/AA1982.DAT:\*

4: /SIDS1/gcdata/geneseq/geneseq/geneseq/AA1983.DAT:\*

5: /SIDS1/gcdata/geneseq/geneseq/geneseq/AA1984.DAT:\*

6: /SIDS1/gcdata/geneseq/geneseq/geneseq/AA1985.DAT:\*

7: /SIDS1/gcdata/geneseq/geneseq/geneseq/AA1986.DAT:\*

8: /SIDS1/gcdata/geneseq/geneseq/geneseq/AA1987.DAT:\*

9: /SIDS1/gcdata/geneseq/geneseq/geneseq/AA1988.DAT:\*

10: /SIDS1/gcdata/geneseq/geneseq/geneseq/AA1989.DAT:\*

11: /SIDS1/gcdata/geneseq/geneseq/geneseq/AA1990.DAT:\*

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13: /SIDS1/gcdata/geneseq/geneseq/geneseq/AA1992.DAT:\*

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16: /SIDS1/gcdata/geneseq/geneseq/geneseq/AA1995.DAT:\*

17: /SIDS1/gcdata/geneseq/geneseq/geneseq/AA1996.DAT:\*

18: /SIDS1/gcdata/geneseq/geneseq/geneseq/AA1997.DAT:\*

19: /SIDS1/gcdata/geneseq/geneseq/geneseq/AA1998.DAT:\*

20: /SIDS1/gcdata/geneseq/geneseq/geneseq/AA1999.DAT:\*

21: /SIDS1/gcdata/geneseq/geneseq/geneseq/AA2000.DAT:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match Length	DB ID	Description
1	248	100.0	625	19 W62830
2	241	97.2	666	19 W62828
3	235	94.8	666	19 W62829
4	110	44.4	525	19 W62831
5	110	44.4	566	13 R20181
6	109	44.0	590	19 W62832
7	96	38.7	28	19 W62841
8	68.5	27.6	593	19 W62835
9	66.5	26.8	35	13 R21079
10	66.5	26.8	637	19 W62837
11	65.5	26.4	33	19 W62835
12	65.2	910	20	W22191

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11	65.5	26.4	33	19 W62835
12	65.2	910	20	W22191

**ALIGNMENTS**

RESULT 1

W62830 ID W62830 standard; Protein: 625 AA.

XX AC W62830;

XX DT 27-OCT-1998 (first entry)

XX DE Macadamia integrifolia antimicrobial protein.

XX KW antimicrobial protein; infestation; control.

XX OS Macadamia integrifolia.

XX PR

Key Location/Qualifiers

PT 1..28

PT /note= "signal peptide"

PT 29..666

PT /note= "mature protein"

XX RN W09827805-A1.

XX PD 02-JUL-1998.

XX PF 22-DEC-1997; 97WO-AU00874.

XX PR 20-DEC-1996; 96AU-0004275.

XX PA (RETR-) COOP RES CENT TROPICAL PLANT PATHOLOGY.

XX PI Bower NI, Goulter KC, Green JL, Manners JM, Marcus JP;

XX WPI: 1998-377279/32.

DR N-PSDB; V42316.

Mouse brain CNG-1

PT Novel anti-microbial protein from e.g. *Macadamia integrifolia* -  
 PT useful for controlling microbial infestations of plants or mammals  
 XX  
 PS Claim 1; Page 43-45; 96pp; English.

CC The sequence is that of an antimicrobial protein which can  
 CC be used to control microbial infestations in plants and mammalian  
 XX animals.

SQ Sequence 625 AA;

Query Match 100.0%; Score 248; DB 19; Length 625;  
 Best Local Similarity 100.0%; Pred. No. 1.3e-19;  
 Matches 43; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NQEDPQTECQQCQRCRQESDPROQQYCQRCKEICEEEEEEY 43  
 Db 33 nqedpqtecqgqcrqrqesdprqqyceqrckeeeyy 75

RESULT 2  
 ID W62828 standard; Protein: 666 AA.

XX W62828;  
 AC  
 XX  
 DT 27-OCT-1998 (first entry)

DE Macadamia integrifolia antimicrobial protein.  
 KW antimicrobial protein; infestation; control.  
 XX  
 OS Macadamia integrifolia.

XX  
 FH Key Location/Qualifiers  
 FT Peptide 1.28  
 FT /note= "signal peptide"  
 FT Protein 29..666  
 FT /note= "mature protein"

XX  
 FN W09827805-A1.  
 XX  
 PD 02-JUL-1998.  
 XX  
 PF 22-DEC-1997; 97WO-AU00874.  
 XX  
 FR 20-DEC-1996; 96AU-0004275.  
 XX  
 PA (RETR-) COOP RES CENT TROPICAL PLANT PATHOLOGY.  
 XX  
 PI Bower NI, Goulter KC, Green JL, Manners JM, Marcus JP;  
 XX  
 DR WPI; 1998-377279/32.  
 XX  
 PT Novel anti-microbial protein from e.g. *Macadamia integrifolia* -  
 PT useful for controlling microbial infestations of plants or mammals  
 XX  
 PS Claim 1; Page 39-41; 96pp; English.

CC The sequence is that of an antimicrobial protein which can  
 CC be used to control microbial infestations in plants and mammalian  
 XX animals.

SQ Sequence 666 AA;

Query Match 94.8%; Score 235; DB 19; Length 666;  
 Best Local Similarity 93.0%; Pred. No. 3.5e-18;  
 Matches 40; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 NQEDPQTECQQCQRCRQESDPROQQYCQRCKEICEEEEEEY 43  
 Db 74 nqedpqtecqgqcrqrqesdprqqyceqrckeeeyy 116

RESULT 4  
 ID W62831 standard; Protein: 525 AA.

XX  
 AC W62831;  
 XX  
 DT 27-OCT-1998 (first entry)

XX  
 DE Theobroma cacao antimicrobial protein.  
 XX  
 KW antimicrobial protein; infestation; control.  
 XX  
 OS Theobroma cacao.

Query Match 97.2%; Score 241; DB 19; Length 666;  
 Best Local Similarity 97.7%; Pred. No. 7.8e-19;  
 Matches 42; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 NQEDPQTECQQCQRCRQESDPROQQYCQRCKEICEEEEEEY 43  
 OS



XX  
 DT 27-OCT-1998 (first entry)  
 XX  
 DE Stenocarpus sinuatus antimicrobial protein.  
 XX  
 KW antimicrobial protein; infestation; control.  
 XX  
 OS Stenocarpus sinuatus.  
 XX  
 PN WO9827805-A1.  
 XX  
 PD 02-JUL-1998.  
 XX  
 PT 22-DEC-1997; 97WO-AU00874.  
 XX  
 PR 20-DEC-1996; 96AU-0004275.  
 XX  
 PA (RETR-) COOP RES CENT TROPICAL PLANT PATHOLOGY.  
 XX  
 PI Bower NI, Goulter KC, Green JL, Manners JM, Marcus JP;  
 XX  
 DR WPI; 1998-377279/32.  
 XX  
 PT Novel anti-microbial protein from e.g. Macadamia integrifolia - useful for controlling microbial infestations of plants or mammals  
 XX  
 PS Claim 1; Page 66; 96pp; English.  
 CC The sequence is that of an antimicrobial protein which can be used to control microbial infestations in plants and mammalian animals.  
 CC  
 Sequence 28: AA;  
 XX  
 Query Match 38.7%; Score 96; DB 19; Length 28;  
 Best Local Similarity 63.0%; Pred. No. 0.0021; Mismatches 17; Indels 0; Gaps 0;  
 Matches 3; Peptide; 35 AA.  
 QY 4 DPQTECQQCOPRCRQESDRPRQQCQ 30  
 ||| : ||| ||| ||| ||| ||| ||| ||| ||| ||| |||  
 Db 2 dpirqqqlcgmrcqgqekdrqqqack 28  
 XX  
 RESULT 8  
 XX  
 ID W62835 standard; Protein; 593 AA.  
 XX  
 AC W62835;  
 XX  
 DT 27-OCT-1998 (first entry)  
 XX  
 DE Zea mays antimicrobial protein.  
 XX  
 KW antimicrobial protein; infestation; control.  
 XX  
 PN WO9827805-A1.  
 XX  
 PD 02-JUL-1998.  
 XX  
 PR 22-DEC-1997; 97WO-AU00874.  
 XX  
 PR 20-DEC-1996; 96AU-0004275.  
 XX  
 PA (RETR-) COOP RES CENT TROPICAL PLANT PATHOLOGY.  
 XX  
 PI Bower NI, Goulter KC, Green JL, Manners JM, Marcus JP;  
 XX  
 DR WPI; 1998-377279/32.  
 XX  
 PT Novel anti-microbial protein from e.g. Macadamia integrifolia -  
 XX  
 Sequence 593 AA;  
 XX  
 Query Match 27.6%; Score 68.5; DB 19; Length 593;  
 Best Local Similarity 35.3%; Pred. No. 3.4; Mismatches 11; Indels 1; Gaps 1;  
 Matches 12; Conservative 10; Peptide; 35 AA.  
 QY 2 QEDPQTECQQCOPRCRQESDRPRQQCQ 34  
 ||| : ||| : ||| ||| ||| ||| ||| ||| ||| |||  
 Db 557 eeeersgrggrccrrqrrqrrqrrqrrqrrqrrqrrqrr 590  
 XX  
 RESULT 9  
 ID R21079 standard; Peptide; 35 AA.  
 XX  
 AC R21079;  
 XX  
 DT 09-APR-1992 (first entry)  
 XX  
 DE Antimicrobial maize peptide, CMIII.  
 XX  
 PN Maize; CMIII; corn; pathogen.  
 XX  
 OS Zea mays.  
 XX  
 PN EP465009-A.  
 XX  
 PD 08-JAN-1992.  
 XX  
 PR 05-JUN-1991; 91EP-0305064.  
 XX  
 PR 05-JUN-1990; 90US-0536127.  
 XX  
 PA (PION-) PIONEER HI-BRED INT.  
 XX  
 PI Duvick JP, Rood TA, Rao AG;  
 XX  
 DR WPI; 1992-010214/02.  
 XX  
 PT Use of maize seed peptide CMIII and DNA encoding it - for killing or inhibiting plant pathogenic microorganisms.  
 XX  
 PS Example 2; Page 5; 21PP; English.  
 XX  
 CC The peptide (SEQ ID NO 1) was purified from public corn variety B73 and proprietary corn variety MH8. It is basic and has a total mol. wt. of 3900 daltons. The peptide sequence was used to design probes which were used to screen a maize genomic or cDNA library. The isolated CMIII gene can be used to prepare an expression vector for prodn. of recombinant CMIII for use in controlling plant pathogenic organisms. See also Q20272 and 3.  
 CC  
 Sequence 35 AA;  
 XX  
 Query Match 26.8%; Score 66.5; DB 13; Length 35;  
 Best Local Similarity 44.0%; Pred. No. 0.4; Mismatches 11; Indels 1; Gaps 1;  
 Matches 6; Conservative 6; Peptide; 35 AA.  
 QY 11 OCQRRG-RQOESDRPRQQCOPRCR 34  
 ||| : ||| : ||| : ||| : ||| : ||| : |||  
 Db 6 ecirqlrlrhgqpyetqetcmrrc 30

RESULT 10  
 W62837 ID W62837 standard; Protein; 637 AA.  
 AC XX  
 XX W62837;  
 DT 27-OCT-1998 (first entry)  
 DE Hordeum vulgare antimicrobial protein.  
 KW antimicrobial protein; infestation; control.  
 OS XX  
 XX Hordeum vulgare.  
 PN W09827805-A1.  
 XX  
 XX PD 02-JUL-1998.  
 XX  
 XX PF 22-DEC-1997; 97WO-AU000874.  
 XX  
 PR 20-DEC-1996; 96AU-0004275.  
 XX  
 PA (RETR-) COOP RES CENT TROPICAL PLANT PATHOLOGY.  
 XX  
 PT Bower NI, Goulter KC, Green JL, Manners JM, Marcus JP;  
 XX DR WPI; 1998-377279/32.  
 XX  
 PT Novel anti-microbial protein from e.g. Macadamia integrifolia - useful for controlling microbial infestations of plants or mammals  
 CC The sequence is that of an antimicrobial protein which can be used to control microbial infestations in plants and mammalian animals.  
 CC  
 SQ Sequence 33 AA;

Query Match 26.4%; Score 65.5; DB 19; Length 33;  
 Best Local Similarity 44.0%; Pred. No. 0.49; Mismatches 7; Indels 1; Gaps 1;  
 Matches 11; Conservative 6; Mismatches 7; Indels 1; Gaps 1;  
 ID Y22191 standard; Protein; 910 AA.  
 AC Y22191;  
 XX  
 DT 10-SEP-1999 (first entry)  
 XX  
 DE Mouse brain CNG-1 protein sequence.  
 XX  
 KW BCNG; brain cyclic nucleotide gated ion channel; epilepsy; hyperalgesia;  
 KW Alzheimer's Disease; Parkinson's Disease; long QT syndrome; dyslexia;  
 KW sick sinus syndrome; age-related memory loss; cystic fibrosis;  
 KW sudden death syndrome; pacemaker rhythm dysfunction; sensory disorder;  
 KW auditory disorder; respiratory disorder; attention deficit disorder;  
 KW learning disability; drug addiction; therapy; mBCNG-1.  
 XX  
 OS Mus sp.  
 XX  
 PN W09932615-A1.  
 XX  
 PD 01-JUL-1999.  
 XX  
 PF 23-DEC-1998; 98WO-US27630.  
 XX  
 PR 28-MAY-1998; 98US-0006436.  
 PR 23-DEC-1997; 97US-0997685.  
 XX  
 PA (UYCO ) UNIV COLUMBIA NEW YORK.  
 XX  
 PT Bartsch D, Grant S, Kandel ER, Santoro B, Siegelbaum S;  
 PT Tibbs G;  
 XX  
 DR WPI; 1999-418922/35.  
 DR N-PSDB; X84142.  
 XX  
 PT An isolated nucleic acid encoding a brain or heart cyclic nucleotide-gated ion channel  
 XX  
 PS Claim 16; Page 185-188; 213pp; English.  
 XX  
 CC This sequence is the brain cyclic nucleotide-gated ion channel (BCNG) of the invention, designated mBCNG-1. BCNG and BCNG-related proteins are useful in screening for compounds that modulate, interact or affect expression. Compounds, e.g. antagonists and agonists, identified in the methods are useful for modulating BCNG or BCNG-related protein activity. Modulation is increased or decreased ion permeability or ion

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flow rate. Modulators of BCNG can be used to treat a neurological, renal, pulmonary, hepatic or cardiovascular condition. Such conditions include epilepsy, Alzheimer's Disease, Parkinson's Disease, long QT syndrome, sick sinus syndrome, age-related memory loss, cystic fibrosis, sudden death syndrome or pacemaker rhythm dysfunction. BCNG or BCNG-related protein can also be used to treat sensory disorders, e.g. blindness, loss of vision, loss of smell, numbness and lack of ability to taste. Also treatable are auditory disorders, respiratory disorders due to defects in central nervous system areas that control respiration or defects in the lungs, dyslexia, attention deficit disorder or learning disabilities, drug addiction and regulation of cell secretions. The proteins are useful targets for screening for drugs that are effective in the control of pain and hyperalgesia.

RESULT 14  
 W14783  
 W14783 standard; Protein; 919 AA  
 XX  
 AC  
 AX  
 XX  
 DT 22-JUN-1997 (first entry)

D P93109 standard; protein; 919 AA.  
X  
X C P93109;  
X  
T 19-MAR-1990 (first entry)  
X  
E Human androgen receptor.  
X  
W  
X Human androgen receptor; ployclonal antibody; cancer.  
S  
X Homo sapiens.  
N  
W09309791-A.

Oligonucleotide(s) antisense to human androgen receptor and acidic FGF genes - used to inhibit gene expression, for the treatment of benign prostatic hyperplasia

Query Match 26.2%; Score 65; DB 18; Length 919;  
 Best Local Similarity 48.3%; Pred. No. 12; Mismatches 6; Indels 9;  
 Matches 14; Conservative 6; Mismatches 9; Indels 1

RESULT 15  
78914  
D Y78914 standard; protein; 919 AA.  
OX 178914

Query Match 26.2%; Score 65; DB 10; Length 919;  
 Best Local Similarity 48.3%; Fred. No. 12;

Search completed: March 1, 2001, 15:47:15  
Job time: 240 sec

Search completed: March 1, 2001, 15:47:15  
Job time: 240 sec

